

What is claimed is:

1. A passage structure of a dishwasher, comprising:

5 a circulating pump for pressing and then supplying wash liquid;

an injection arm for permitting the wash liquid pressed and supplied from the circulating pump to be injected by a predetermined passage structure;

an underdrain container for collecting the wash liquid injected from the injection arm and supplying the collected wash liquid to the circulating pump, during a washing stage;

15 a soil collecting chamber having a micro filter with a fine mesh for ramifying and finely filtering the wash liquid supplied from the circulating pump and returning the same to the underdrain container, during the washing stage;

20 a drain pump for allowing the wash liquid to be drained through a drain passage which is extended from the underdrain container, and through a connecting passage which is extended from the soil collecting chamber and connected to the drain passage, during a draining stage;

2. The passage structure of claim 1, wherein the underdrain container includes a net filter with a rough mesh to filter large soil particles.

3. The passage structure of claim 1, wherein the micro filter is placed on an upper surface of the soil collecting chamber.

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4. The passage structure of claim 1, further comprising an auxiliary nozzle which is formed on a lower part of the injection arm and injects the wash liquid to the micro filter to float the soil collected in the soil collecting chamber in the soil collecting chamber.

5. The passage structure of claim 1, further comprising a check valve placed in the drain passage to prevent the wash liquid including the soil from flowing backward into the underdrain container.

6. The passage structure of claim 5, wherein the check valve is installed at a place near the underdrain container based on a connecting passage with the soil collecting chamber.

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7. The passage structure of claim 1, further comprising an auxiliary check valve placed at the connecting passage to prevent the soil from flowing backward into the soil collecting chamber after draining stage.

8. The passage structure of claim 1, wherein the circulating pump and the drain pump are integrally formed to be a combination circulating/drain pump.

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9. A dishwasher comprising:

a case,

a rack being installed on the case to accommodate dishes,

an injection arm being installed on a lower side of the rack,

a circulating pump for pressing and supplying wash liquid to the injection arm,

a drain pump for draining the wash liquid, and

filtering means for filtering the wash liquid,

Wherein the filtering means includes:

an underdrain container being installed on a lower part of a bottom surface within the case and being connected to an inlet of the drain pump, and a net filter being installed on the underdrain container,

a soil collecting chamber being installed on a bottom surface of the case and being connected to a discharge slot of the circulating pump and the inlet of the drain pump and a micro filter being installed on an upper surface of the soil collecting chamber, and

an auxiliary nozzle being installed on a lower surface of the injection arm to inject the wash liquid to an upper surface of the micro filter.

5           10. The dishwasher of claim 9, further comprising a check valve which is formed on a drain passage connected from the underdrain container to the drain pump to prevent the wash liquid from being flowing backward into the underdrain container.

10           11. The dishwasher of claim 10, wherein the check valve is placed at a position close to the underdrain container based on a connecting passage with the soil collecting chamber.

15           12. The dishwasher of claim 9, further comprising an auxiliary check valve which is formed on the connecting passage connecting the soil collecting chamber and the drain passage to prevent the wash liquid from being flowing backward into the soil collecting chamber.

20           13. A passage of a dishwasher, comprising:  
a circulating pump for pressing and supplying wash liquid;  
an injection arm for injecting the wash liquid supplied from the circulating pump to dishes;

an underdrain container for collecting the wash liquid injected from the injection arm and returning the wash liquid to the circulating pump, during a washing stage;

5 a soil collecting chamber for ramifying a partial volume of the wash liquid pressed and supplied from the circulating pump, filtering soil among the wash liquid, and returning the wash liquid to the underdrain container, during the washing stage; and

10 a drain pump for discharging the wash liquid from the underdrain container and the soil collecting chamber, during a draining stage.